

REMARKS

In the Office Action dated April 25, 2003, the response time to which has been extended by one month until August 25, 2003 by a concurrently filed request for a one month extension of time and fee, claims 1-6 and 8-10 are rejected under 35 USC §102(b). Claims 7, and 11-18 are rejected under 35 USC §103(a).

However, for the reasons set forth hereafter, it is respectfully submitted that Applicants' invention as set forth in the claims includes features which are not anticipated or rendered obvious by the cited references taken singly or in any permissible combination. Reconsideration is, therefore, respectfully requested.

Applicants' attorney would like to thank Patent Examiners Yam and Luu for their time and courtesies extended during a personal interview conducted on August 13, 2003. During the interview, proposed amendments to claim 1, as set forth herein, were presented to the examiners and discussed with respect to the differences between the invention set forth in claim 1 and each of the cited references. Such differences are repeated in this communication.

Claim 1 defines Applicants' invention to include a single control unit operable to selectively control at least one of an intensity, duration and frequency of a first ray emitted by the radiation source and to analyze the first ray when at least a portion of the first ray is received by the photo detector base, at least in part, on one of the previously controlled intensity, duration and frequency of the first ray.

Antecedent basis for the added feature of claim 1 can be found on page 5, paragraph 16 of the specification. It is respectfully submitted that claim 1 has complete antecedent basis in the original specification.

It is respectfully submitted that this feature is completely lacking in the cited references taken singly or in any permissible combination. Each of the cited references discloses devices for detecting particles on a vehicle windshield. All of the references disclose controls which emit a light ray onto the inside surface of the window and analyze a reflected portion of the light ray to determine whether or not a particle is detected on the windshield. In all of the references, the light ray is at a fixed intensity.

The Examiner cites Nakamura for disclosing in column 6, lines 10-20 that a radiation source is operable to emit optical rays having different intensities. However, a review of this portion of Nakamura specified by the Examiner fails to uncover the concept cited by the Examiner. Rather, this portion of Nakamura discloses the use of the hysteresis of a comparator circuit wherein the period of delay can be adjusted according to the hysteresis. This time delay is employed to activate a fog removing apparatus when fog is detected on the windshield, with the amount of delay determining how long the fog apparatus is actuated. It is respectfully submitted that this portion of Nakamura is totally unrelated to Applicants' invention as set forth in claim 1.

Nakamura, as well as all of the other cited references, fails to disclose the selective control of at least one of the intensity, duration and frequency of the first light ray and to analyze the reflected portion of the light ray in accordance with the selected parameter. This means that the intensity of the light ray can be selectively varied. Likewise, the duration and frequency of the light ray, both of which parameters are not controlled in the cited references, can be selectively varied. This enable different particle on the outside or the inside of the windshield to be more effectively recognized. Further, control of anyone of these parameters is directly opposed to the cited references which provide only for a fixed intensity to the light ray.

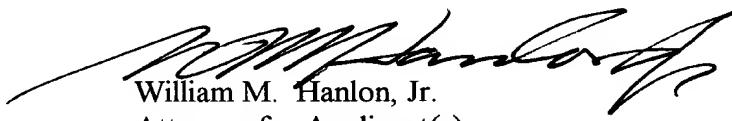
For these reasons, it is respectfully submitted that Applicants' invention as set forth in claim 1, as well as all the claims depending therefrom, includes features which are not anticipated or rendered obvious by the cited references, taken singly or in any permissible combination.

Claims 7 and 11-18 are rejected under 35 USC §103(a) over various combinations of the cited references. However, it is respectfully submitted that Applicants' invention as set forth in these claims, each of which depends directly or indirectly from claim 1, patentably defines over the cited references as combined by the Examiner for the same reasons set forth above with respect to the patentability of Applicants' invention over Nakamura.

In conclusion, for the above reasons, it is respectfully submitted that Applicants' invention as set forth in claims 1-9 and 11-18 includes features which are not anticipated or rendered obvious by the cited references. Thus, it is submitted that claims 1-9 and 11-18 are in condition for allowance; a notice of which is respectfully requested.

Respectfully submitted,

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